

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/032934

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61L27/34 A61L27/44 A61F2/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61L A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, MEDLINE, BIOSIS, EMBASE, INSPEC, COMPENDEX, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KLEE, DORIS ET AL: "Polymers for biomedical applications: improvement of the interface compatibility" ADVANCES IN POLYMER SCIENCE, 149(BIOMEDICAL APPLICATIONS/POLYMER BLENDS), 1-57 CODEN: APSIDK; ISSN: 0065-3195, 1999, XP009044240 page 36 - page 38 page 43 - page 53	1-4,7,8, 11-17
X	GB 2 250 442 A (* ALLERGAN INC) 10 June 1992 (1992-06-10) page 1 page 4 - page 7; claims 1-10	11,12, 14,17
Y	----- -/--	1-4,7,8, 13,15,16

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

21 February 2005

Date of mailing of the international search report

18. 05. 2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Markopoulos, E

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/007217 A1 (JACOB JEAN T ET AL) 17 January 2002 (2002-01-17) page 5 - page 7; example 3	11,12, 14,17
Y		1-4,7,8, 13,15,16
X	DE 37 19 177 A1 (SIEGEL,ROLF,DR) 29 December 1988 (1988-12-29) column 1 - column 2; claim 1	11,12, 14,17
Y		1-4,7,8, 13,15,16
Y	INSLER M S ET AL: "Heterologous transplantation versus enhancement of human corneal endothelium." CORNEA. MAR 1991, vol. 10, no. 2, March 1991 (1991-03), pages 136-148, XP009044204 ISSN: 0277-3740 cited in the application page 138 page 143 - page 147	1-4,7,8, 11-17
Y	ENGELMANN K ET AL: "[Endothelial cell transplantation and growth behavior of the human corneal endothelium] ENDOTHELZELLTRANSPLANTATION UND WACHSTUMSVERHALTEN DES HUMANEN KORNEALEN ENDOTHELIS" OPHTHALMOLOGE, SPRINGER, BERLIN,, DE, vol. 96, no. 9, September 1999 (1999-09), pages 555-562, XP002312235 ISSN: 0941-293X page 556 - page 560	1-4,7,8, 11-17
X	SCHNEIDER A ET AL: "AN IMPROVED METHOD FOR ENDOTHELIAL CELL SEEDING ON POLYTETRAFLUOROETHYLENE SMALL CALIBER VASCULAR GRAFTS" JOURNAL OF VASCULAR SURGERY, C.V. MOSBY CO., ST. LOUIS, MO, US, vol. 15, no. 4, April 1992 (1992-04), pages 649-656, XP000884442 ISSN: 0741-5214 page 649 - page 653	5
X	US 5 766 584 A (EDELMAAN ET AL) 16 June 1998 (1998-06-16) column 1 - column 9	1,9,10

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 7 and 8 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1 (in part), 2-4, 7, 8, 1-17

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1 (in part), 2-4,7,8,1-17

Preparation of artificial cornea by coating with an attachment mixture

2. claim: 5

Preparation of artificial cornea by coating with a BCE-ECM coating

3. claim: 6

Preparation of artificial cornea by coating with DLC

4. claims: 18-21

Preparation of artificial cornea without coating or with a non-specified coating

5. claims: 1 (in part), 9,10

Attachment mixture and its use in modification of any biopolymer

6. claims: 22-26

Biopolymer with RPE cells for retina repair

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2250442	A	10-06-1992	DE 3904741 A1	24-08-1989
			FR 2627078 A1	18-08-1989
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			JP 1249048 A	04-10-1989
			US 5192316 A	09-03-1993

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US 5766584	A	16-06-1998	AT 232748 T	15-03-2003
			AU 714559 B2	06-01-2000
			AU 6292896 A	18-12-1996
			CA 2222497 A1	05-12-1996
			DE 69626290 D1	27-03-2003
			DE 69626290 T2	04-12-2003
			EP 0850073 A1	01-07-1998
			JP 11506364 T	08-06-1999
			WO 9638188 A1	05-12-1996
